

REMARKS

Claims 9-15 are pending. Claims 9, 10, and 12-15 have been amended, and claim 11 has been canceled in this reply. New claims 16-20 have been added to further define the scope of the present invention. Claims 9, 10, and 12-20 therefore will be pending upon entry of the above amendments.

Claims 9-15 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. In particular, the Examiner has indicated that the term “preferably” renders claim 9, and claims 10-15, which depend therefrom, indefinite. Claim 11 has been canceled, thus rendering this rejection moot with respect to that claim.

Applicants respectfully note that the term “preferably” does not appear in claim 9. The term “preferably,” however, does appear in claim 13. Claim 13 has been amended to eliminate this term. Withdrawal of the rejection of claims 9, 10, and 12-15 under 35 U.S.C. § 112, second paragraph, is respectfully requested.

Claims 9-13 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. patent no. 246,858 (Aitchison). Claims 9-11, 13, and 15 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. patent no. 4,068,680 (Sliger). Claim 11 has been canceled, thus rendering this rejection moot with respect to that claim.

Claim 12 has been rejected under 35 U.S.C. § 103(a) as being obvious over Sliger in view of U.S. patent no. 5,586,541 (Tsai). Claim 14 has been rejected under 35 U.S.C. § 103(a) as being obvious over Aitchison or Sliger. Applicants respectfully submit that claims 9, 10, and 12-15 are patentably distinct from the cited references for at least the following reasons.

Claim 9 has been amended to recite an air flow control valve arrangement, as opposed to a fluid flow control arrangement. Claim 9 has also been amended to recite said first valve closure comprising a member having a shaft portion and a broad flat head portion defining an annular sealing face connected to the shaft portion, the first valve closure being located in an axial bore having an annular seat such that in the closed position the head portion of the first valve closure sealably engages with the annular seat, and wherein the second valve closure comprises a generally annular member, the periphery of the generally annular member cooperating with the annular seat of the first valve and which defines a central passageway incorporating the first valve closure, the first valve closure being operative to open and close the central passageway.

The air flow control valve arrangement of amended claim 9 can be used, for example, in a traffic calming device as described in the present application. According to the present invention, when in the normal resting state, or when a vehicle is traveling at low speed over the traffic calming device, air can flow around the first valve of the air flow control valve arrangement, and exit through the air outlet (9). *See* pg. 7, lines 29, 30; pg. 8; lines 1-10; and Fig. 2 of the original application.

When a vehicle passes over the traffic calming device at a faster speed, a much more rapid increase in air pressure can occur. Although not part of the invention claimed herein, the rapid increase in air pressure is caused by the sinusoidal shape of the traffic hump. As a result of the increase in air pressure, the closure (19) of the first valve shuts against the bias of the spring (23). The air pressure may not be great enough, however, to cause the second valve to open. *See* original application at pg. 8, lines 19-28.

When a heavy vehicle passes over the traffic calming device, an even greater increase in air pressure can occur. This pressure can be such that the first valve remains closed, and the second valve opens against the force of the spring (17). Air can then pass around the second valve and out of the air outlet (9). *Id.* at pg. 9, lines 1-11.

The examiner has characterized the ball valve (27) of Sliger as a “first valve” as recited in claim 9 of the present application. Office action at pg. 2, line 21. Claim 9 of the present application has been amended to recite the first valve as having the characteristics of a flat head valve. In particular, claim 9 has been amended to recite the first valve closure as comprising a member having a shaft portion and a broad flat head portion defining an annular sealing face connected to the shaft portion, the valve closure being located in an axial bore having an annular seat such that in the closed position the head portion of the valve closure sealably engages with the annular seat.

The use of a flat head valve is believed to possess advantages in comparison to a ball valve. A flat head valve is believed to be more responsive than a ball valve when used as an air flow control valve. In particular, a ball valve can spin in response to a sudden increase in pressure, while a flat head valve can travel straight down in a relatively quick manner. Moreover, a flat head valve generally has a larger surface area to react the pressure increase.

A flat head valve thus can respond relatively quickly to very sudden increases in pressure, such as will occur when a motor vehicle passes over the traffic claming device. The flat head valve therefore is believed to be particularly well suited for use in applications such as the traffic claming device. Applicants therefore respectfully submit that Sliger, which discloses a ball valve (27) for use in a liquid system, neither teaches nor suggests an air flow control valve arrangement as recited in amended claim 9.

Applicants respectfully submit that Aitchison and Tsai likewise neither teach nor suggest a first valve closure comprising a member having a shaft portion and a broad flat head portion defining an annular sealing face connected to the shaft portion, the first valve closure being located in an axial bore having an annular seat such that in the closed position the head portion of the first valve closure sealably engages with the annular seat, and wherein the second valve closure comprises a generally annular member, the periphery of the generally annular member cooperating with the first valve closure, the first valve closure being operative to open and close the passageway.

Withdrawal of the rejection of claim 9 (and claims 10 and 13-15, which depend therefrom) under 35 U.S.C. §§ 102(b) or 103(a) is respectfully requested in view of the above amendments and remarks.

The Examiner has indicated that the information disclosure statement (IDS) filed on April 5, 2004 fails to comply with 37 C.F.R. § 1.98(a)(2) because copies of the foreign patents cited therein were not provided with the IDS. Office action at pg. 2, lines 1-4.

Applicants respectfully submit that, as stated on page 3 of the IDS, the references cited in the IDS were previously cited by or submitted to the Patent and Trademark Office in a patent application for which a claim for priority under 35 U.S.C. § 120 was made in the present application. Hence, in accordance with 37 C.F.R. § 1.98(d), copies of the references are not required. A initialed copy of the IDS filed on April 5, 2004 is respectfully requested.

A Notice of Allowability is respectfully requested in this case.

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